Quality Control

Item ID: D3437-11	
Start Date: 12/17/13 Start Qty: 6.00 *6* Cust Item ID:  Required Date: 12/17/13 Req d Qty: 6.00 *6* Customer:	US1*
Required Date: 12/17/13 Req to Oty: 6.00 *6* Customer:	VS2*
Approvals: Process Plan: Date: Date: Date:	<b>JR1</b> *
QC: Date: SPC (Y/N): Date: *	VR2*
Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Work Center ID Description Run Hours Code Qty Qty Numb	
Draw Nbr Revision Nbr	
D3437 Rev B	
100  *100  DOOSAN LATHE  Doosan  Memo  Doosan Lathe  Doosan Lathe	40 40
110 QC2- Inspect parts off machine FAI/FAIB 0.00  *110* QC Memo 0.00	0AS
Quality Control	14/01/62
120 QC8- Inspect parts - second check 0.00	0A3 08 89

DQA:			Date:										
						WORK ORDER NON-	-CC	ONFO	RMANCE / UPDATE				AEROSPACE
QA Closed:			Date:							W	ork Order up	date only	
Work Orde	er:					DISPOSITION			AGAINST	DE	PARTMENT	/PROCESS	
	•				_	Rework	1		Skid-tube Crosstube	Γ	]	Water Jet	Engineering
Part N	lo.					Scrap		ا	Machining Small Fab		] Pro	d. Eng. Coor.	Quality
NCR N	lo		<u></u>			Use-as-is Suspected Unapproved		Thern	noforming Finishing Large Fab Composite	-	Rec/Sto	re/Packaging Supplier	Other
Root					Desc	ription of work order update	Ī	nitial	Action		Sign &		
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
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Doc/Data	_												
Equip/Tooling													
Handling/Pre													
Material									i				
Operator			1				İ						50
Offset/Setup													
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Supplier	$\Box$				İ								
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Unapproved				<u> </u>								<u>,</u>	
						47.00	FA	ULT CA	TEGORY				
Landi	ng G	Sear				General		,		_	7	<b>,</b>	<b>-</b>
 		Bending				Bend		1	Program		Outside Dim	<del> </del>	Pressure/Forced
	Ш	Centre No	ot Concer	ntric		BOM/Route		Grain		$\vdash$	Over/Under	<u> </u>	Set-up
		Cracks			L	Broken/Damage/Defect		Hardwa		<u>_</u>	Part Incorre	<b>├</b>	Temperature/Cure
		Crimp/Kii	nk/Ripple	/Wave		Burrs	L	4 '	tion Incomplete/Unqualified	$\vdash$	Part Lost/Mi	issing	Weld
:		Cuffs			_	Contamination	$\vdash$	4	tions Incomplete/Unclear		Part Moved		Wrong Stock Pulled
	L	Crushing			<u> </u>	Countersink	<u>_</u>	-1	gned/off center		Positioned \		<b>-</b> .
	$ldsymbol{f eta}$	Heat Trea			_	Cut Too Short	$\perp$	Mislab		L	Power Loss/	'Surge	Other
		Inspectio	-	Tube	L	Drawing	<u></u>	Misrea				W	
	L	Marks/Cl				Drill Holes		Off-set					
ļ	<u> </u>	Turning S				Finish	_	-	Calibration				
<b>L</b>		Wave/Tw	ist in Tul	be		Fit/Function		Out of	Sequence				

<b>Work Ord</b> December-17-13	-			*11(	1262*							Page 2	
Item ID: Revision ID: Item Name:	D3437-11 Eyebolt		2	Accept	*N900	<b>040</b>	100	<b>)</b> *	Setup	Start Stop	1 /1	S1* S2*	
Start Date: Required Date: Reference:	12/17/13 Start Qty: 6.00 Req'd Qty: 6.00		*6* *6*		Cust Item ID: Customer:								
Approvals:	Process Plan:QC:		Date:	Tooling: _ SPC (Y/N):	Date: Date:			] 		Start Stop	^IVI	R1* R2*	
Sequence ID/ Work Center I 130 *130* Packaging Packaging	D	Operation Description Identify as per dwg & Sto	ock Location: 57044	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Reje Qty			Insp. Stamp DAS 33  4/-6/ 9-89	

MLJ 14-01-07

0.00

0.00

140

\*140\*

Quality Control

QC21- Final Inspection - Work Order Release

Memo

DQA:			_ Date:			_							`	
						WORK ORDER NON	-CC	ONFO	RMANCE / UP			_		AEROSPACE
QA Closed:			Date:							W	ork Order up	odate only		
Work Orde	ır.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS		
Work Orac	•					Rework	ı l		Skid-tube	Crosstube	1	Water Jet		Engineering
Part N	lo.					Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	$\exists$	Quality
	-					Use-as-is	1		noforming	Finishing	4	re/Packaging		Other
NCR N	lo.					Suspected Unapproved	]		Large Fab	Composite		Supplier		
Root			1 :		Doss	rintian of work arder undate	_	Initial	Actio	<b>^</b>	Sign &	1	<del>-  </del>	
Cause		Date	Step	Qty	Desc	ription of work order update or non-conformance		nief Eng	ł .		Date	Verification	,	QC Inspector
Design	$\dashv$	Date	Step	Qty	<u> </u>	or non-comormance	1	ilei Liig	Descri	ption	Date	Vermeation	╫	QC IIISPECTOI
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		Bending				Bend		Folio/F	Program		Outside Dim	nensions	P	ressure/Forced
		Centre N	ot Concer	ntric		BOM/Route	L	Grain			Over/Under	tolerance	∭S <sub>′</sub>	et-up
		Cracks				Broken/Damage/Defect	_	Hardwa	are	<u></u>	Part Incorre	cí	$\vdash$	emperature/Cure
		Crimp/Kii	nk/Ripple	/Wave	<u> </u>	Burrs		Inspect	ion Incomplete/Un	qualified	Part Lost/M	issing	∐^	Veld
		Cuffs			<u> </u>	Contamination		-	tions Incomplete/U	nclear	Part Moved			Vrong Stock Pulled
		Crushing			_	Countersink		-1	gned/off center		Positioned \	-		
		Heat Trea			<u> </u>	Cut Too Short		Mislab			Power Loss/	/Surge	$\Box$ 0	Other
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		Marks/Cl			$oxedsymbol{oxed}$	Drill Holes		Off-set						·
		Turning S			L	Finish	_	-	Calibration					
1 3		Wave/Tu	vist in Tub	ne		Fit/Function	1	lOut of	Sequence					

Page 1

Work Order ID:

110262

Parent Item:

D3437-11

Parent Item Name:

Eyebolt

**Start Date:** 12/17/13

Required Date: 12/17/13

Start Qty: 6.00

Required Qty: 6.00

**Comments:** 

IPP A05.05.20New issueKJ/JLM

IPP Rev:B Now on Doosan Lathe 09-02-11 JLM Verified By:EC

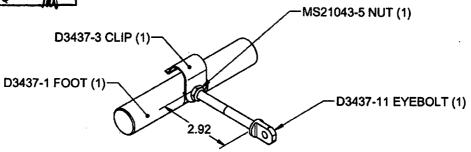
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M303R0.750		Purchased	No			100	f	159.6305	0.2083	1.3155792		/	. ^^
303 Round Bar 0.750												4/01	102 V
				<b>Location</b>		Loc Oty	Loc	: Code					9-1
				MAT028		159.630526							
				m127	464	56.5							
				<b>∽</b> 7 <sup>m127</sup>	647	103.130526			_2				

DQA:			Date:												
						<b>WORK ORDER NON-</b>	-CC	ONFO	RMANCE / U	PDATE					AEROSPACE
QA Closed:			Date:								Wo	ork Order up	date only		
Work Orde	r:					DISPOSITION				AGAINST	DE	PARTMENT	PROCESS	:	,
	•				<del></del>	Rework	1		Skid-tube	Crosstube			Water Jet	_	Engineering
Part N	lo.					Scrap	1		Machining	Small Fab		Pro	d. Eng. Coor.		Quality
	•					Use-as-is			noforming	Finishing			e/Packaging		Other
NCR N	lo.					Suspected Unapproved			Large Fab	Composite			Supplier		
							•			•		·			
Root					Desc	ription of work order update	I	Initial	Act	tion		Sign &			
Cause	_	Date	Step	Qty		or non-conformance	Ch	nief Eng	Descr	ription		Date	Verification	1	QC Inspector
Design						•									
Doc/Data	_														
Equip/Tooling	_														
Handling/Pre															
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Offset/Setup	_						Į						!	!	
Process															
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Training												·			
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		Crimp/Kir	rk/Rinnla	/\ <i>M</i> /ava	-	Burrs	$\vdash$	4	ire ion Incomplete/Ui	ngualified		Part Lost/Mi	i i		Weld
		Cuffs	ik) Mppie	/ wave	-	Contamination		1 '	tions Incomplete/U	•		Part Moved	331118		Wrong Stock Pulled
	$\overline{}$	Crushing			-	Countersink		-{	gned/off center	onicicai	_	Positioned V	l Vrong		TWO ONE STOCK I WILLIAM
		Heat Trea	ıt			Cut Too Short	$\vdash$	Mislabe	=			Power Loss/			Other
		Inspection		Tube	<del> </del>	Drawing		Misrea				1. 0 2033/			
		Marks/Ch	•			Drill Holes	$\vdash$	Off-set				_			
		Turning S				Finish		4	Calibration						
4		Wave/Tw				Fit/Function		-	Sequence						

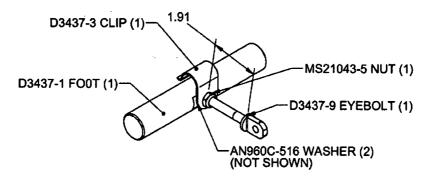


DESIGN	•	DRAWN BY RF	DART AEROSPACE HAWKESBURY, ONTARIO, CAN	
CHECK	#	APPROVED	DRAWING NO. D3437	REV. B SHEET 1 OF 4
DATE	05.0	8.11	AFT STRUT ASSEMBLY	SCALE 1:2
<sup>'</sup> A	0	5.04.29	NEW ISSUE	
В	0:	5.08.11	UPDATE D3437-5/-9/-11 DIMENSION	VS .

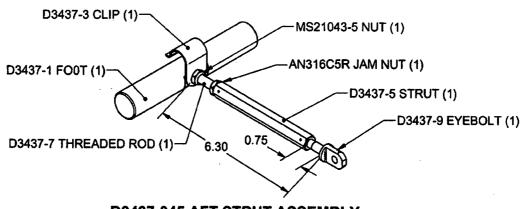
# RELEASED



# **D3437-041 AFT STRUT ASSEMBLY**



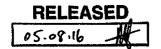
# D3437-043 AFT STRUT ASSEMBLY

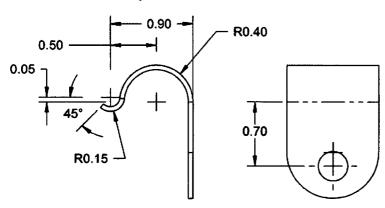


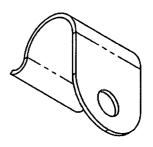
# **D3437-045 AFT STRUT ASSEMBLY**



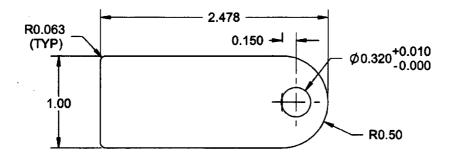
DESIGN RF	DRAWN BY RF	DART AEROSPACE HAWKESBURY, ONTARIO, CAN	
CHECKED	APPROVED	DRAWING NO. D3437	REV. B
DATE 05.0	08.11	AFT STRUT ASSEMBLY	SCALE 1:2







# D3437-3 CLIP SCALE 1:1



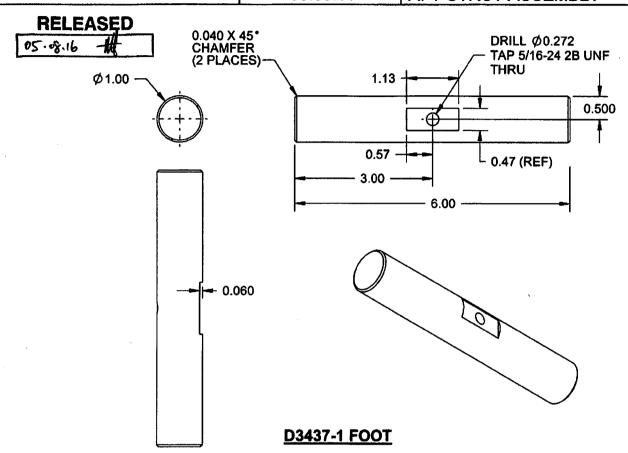
D3437-3 **FLAT PATTERN** 

# D3437-3 CLIP:

- 1) MATERIAL: AISI 304/316 SS SHEET, 0.050 THICK (REF DART SPEC M304S18GA) 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED 3) ALL DIMENSIONS ARE IN INCHES 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

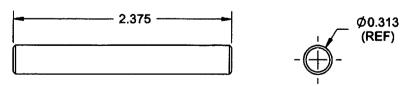


DESIGN RF	DRAWN BY RF	DART AEROSPACE HAWKESBURY, ONTARIO, CAI	
CHECKED,	APPROVED	DRAWING NO.	REV. B
- UK	94	D3437	SHEET 3 OF 4
DATE		TITLE	SCALE
05.0	08.11	AFT STRUT ASSEMBLY	1:2



#### D3437-1 FOOT:

- 1) MATERIAL: 6061-T6 (QQ-A-225/8 OR QQ-A-200/8) ALUMINUM ROUND BAR (REF. DART SPEC M6061T6R)
  2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
  POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
  3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
  4) ALL DIMENSIONS ARE IN INCHES
  5) BREAK ALL SHARP EDGES 0.005 TO 0.010



## **D3437-7 THREADED ROD**

#### **D3437-7 THREADED ROD:**

- 1) POSSIBLE SUPPLIER: HASKINS-SPAENAUR P/N 870-832 18-8 5/16-24 SS THREADED ROD 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

- 4) ALL DIMENSIONS ARE IN INCHES 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

DART AEROSPACE LTD	Work Order:	110262
Description: 6 YE BOIT	Part Number:	D3437-11
Inspection Dwg: 03437 Rev: B		Page 1 of 1

# FIRST ARTICLE INSPECTION CHECKLIST

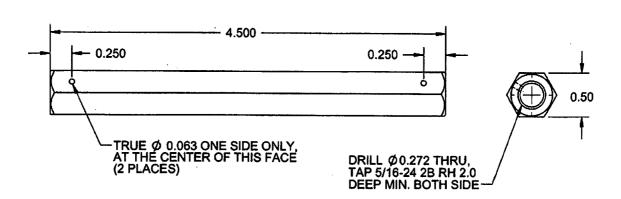
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3,41	± -030	3,408	<b>V</b>		VERN	PUO-12.
2.60	1.030	1,975			1,	(1
MOW 3352	N/A	.3348			Mic	PUD-01
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.90	± -030	, 903	/		VEW	PUD-12
- R-03						
R.310	7 -030	.3(0	V		Rad G	
Ø. 257	T .006	. 257	V		PIN G	
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•.						
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- 625	+ -010	- 630			10	' (
			,			

	V <sub>r</sub> S		-040		
Measured by:	9-89	Audited by: 🚨 👸	08	Preliminary Approval:	
Date:	14/01/02	Date: 14 01	02 89	Date:	

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

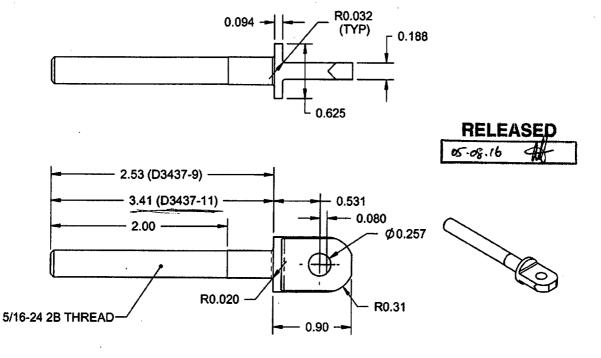


DESIGN RF	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED	APPROVED	DRAWING NO. D3437	REV. B SHEET 4 OF 4	
05.08.11		AFT STRUT ASSEMBLY	. SCALE 1:2	



### **D3437-5 STRUT:**

- 1) MATERIAL: AISI 303 STAINLESS HEX BAR (DART REF. SPEC M303H0.500) 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED 3) ALL DIMENSIONS ARE IN INCHES 4) BREAK ALL SHARP EDGES 0.005 TO 0.010



#### **D3437-9/-11 EYEBOLT:**

- 1) MATERIAL: AISI 303 STAINLESS ROUND BAR (DART REF. SPEC M303R) 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED 3) ALL DIMENSIONS ARE IN INCHES 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

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